

CLAIMS

What is claimed is:

1. A cassette-based hydrogen fuel distribution and recovery system comprising:  
a hydrogen fuel cassette, the fuel cassette including a core fuel material;  
and  
a decom unit to receive the fuel cassette, to recover hydrogen-based fuel from the core fuel material of the fuel cassette, and to provide the hydrogen-based fuel as output.
2. A hydrogen fuel cassette comprising:  
a housing defining at least one interior region; and  
a core fuel material stored in the interior region.
3. The hydrogen fuel cassette of claim 2 further including an electronic device to store information related to the cassette.
4. The hydrogen fuel cassette of claim 2 further including a memory and telemetry circuit to transmit fuel cassette information to a remote receiver.
5. The hydrogen fuel cassette of claim 2 wherein the core fuel material is massively catalyzed water.

6. The hydrogen fuel cassette of claim 2 wherein the core fuel material is solid alloy.
7. A hydrogen decompression (decom) unit comprising:
  - a hydrogen fuel cassette receiving module to receive a removably insertable hydrogen fuel cassette having a core fuel material therein;
  - a processing module to extract core fuel material from the hydrogen fuel cassette and to convert the core fuel material into hydrogen fuel; and
  - an output port to transfer out the processed hydrogen fuel.
8. The hydrogen decompression (decom) unit of claim 7 further including an integrated fuel cell to self-power the decom unit.
9. The hydrogen decompression (decom) unit of claim 7 wherein the core fuel material is massively catalyzed water.
10. The hydrogen decompression (decom) unit of claim 7 wherein the core fuel material is solid alloy.